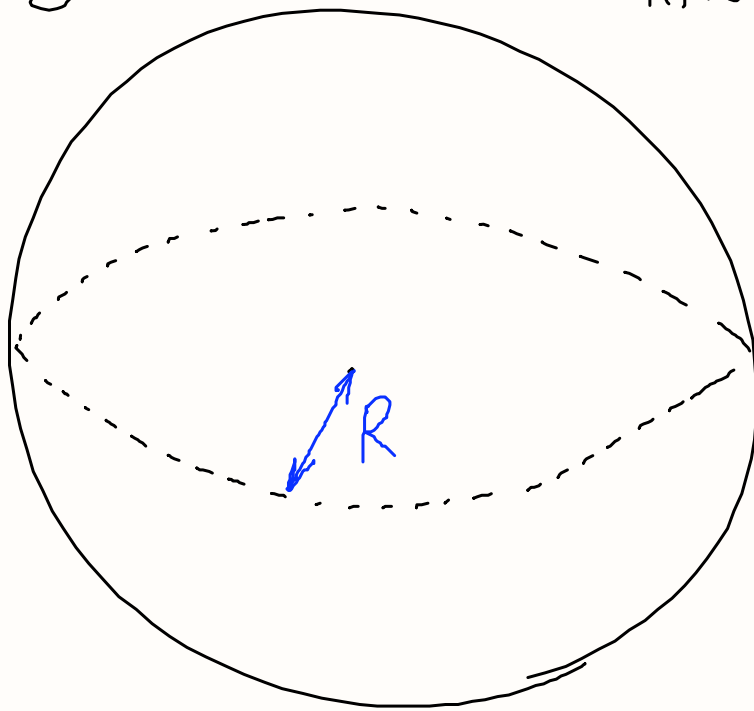
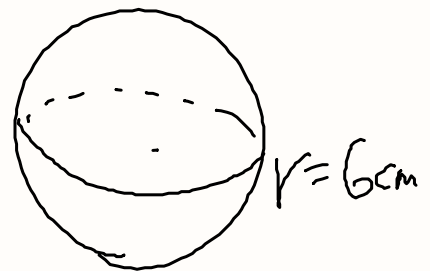
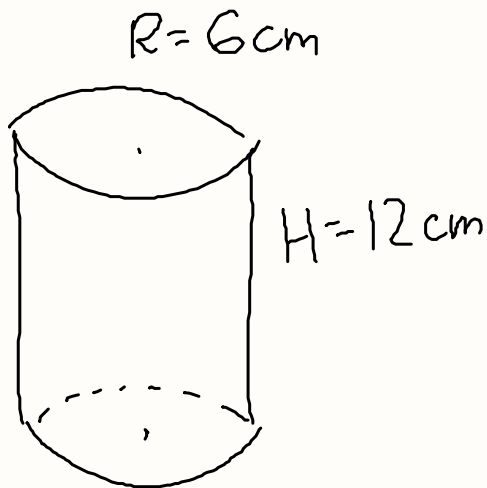


$$V = \frac{4}{3} \pi R^3$$

HEMISPHERE -
HALF OF A
SPHERE



(4)



$$V_{\text{cyl.}} = \pi R^2 \cdot H = \pi \cdot 6^2 \cdot 12 = \pi \cdot 36 \cdot 12 = 432\pi$$

$$V = V_{\text{cyl.}} + V_{\text{sph.}} = 432\pi + 288\pi = \underline{720\pi \text{ cm}^3} = 288\pi$$

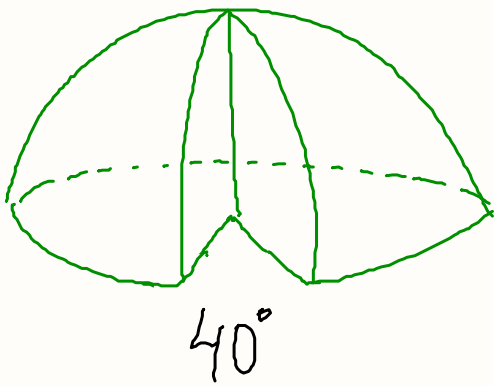
$V_{\text{sph.}} = \frac{4}{3} \pi R^3 = \frac{4}{3} \pi \cdot 6^3 = \frac{4}{3} \cdot 216\pi = 288\pi$

⑥

$$V = \frac{4}{3} \pi R^3 = \frac{4}{3} \pi \cdot 18^3 =$$

$$R = 18 \text{ cm}$$

$$= \frac{4}{3} \pi \cdot 5832 = 7776\pi$$



$$V_{\frac{1}{2}} = \frac{7776\pi}{2} = 3888\pi$$

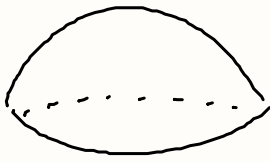
$$\frac{3888\pi}{x} = \frac{360^\circ}{320^\circ}$$

$$x = \frac{3888\pi \cdot 320}{360}$$

$$x = 3456\pi \text{ cm}^3$$

$$360x = 3888\pi \cdot 320$$

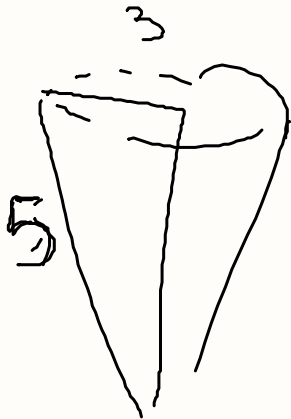
5



$$1) V_{\text{SPH.}} = \frac{4}{3} \pi R^3 = \frac{4}{3} \pi \cdot 3^3 = \frac{4}{3} \pi \cdot 27 =$$

$$2) V_{\frac{1}{2} \text{ SPH.}} = \frac{36}{2} \pi = \underline{18\pi} = \underline{36\pi}$$

$$3) V_{\text{CONE}} = \frac{1}{3} \pi R^2 h = \frac{1}{3} \pi \cdot 9 \cdot 4 = \underline{12\pi}$$



$$h = \sqrt{5^2 - 3^2} = \sqrt{25 - 9} = \sqrt{16} = 4$$

$$V = 18\pi + 12\pi = \underline{30\pi \text{ cm}^3}$$

HOME

11, 12 p. 555

#11

$$\frac{1}{3} \pi R^2 h = V$$

$$3 \cdot \frac{1}{3} \pi R^2 h = V \cdot 3$$

$$\pi R^2 h = 3V$$

$$R^2 = \frac{3V}{\pi h}$$

$$R = \sqrt{\frac{3V}{\pi h}}$$

3p. 543